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ABSTRACT

Independent evaluators examined the progress of the Berrien County Intermediate School District in Berrien County, Michigan, in implementing Michigan's Career Preparation System. The evaluation established that the district has provided the leadership, training, resources, and continued support to implement a systemwide school-to-career reform effort throughout the district. The district has effectively engaged school leaders, teachers, business and industry, community colleges and universities, and economic organizations in developing educational experiences and partnerships to provide all students with the academic course work, technical training, work behavior, knowledge, and skills for success in their chosen career. The district was offering programs in six career pathways reflecting all major occupational clusters. The evaluation revealed strong evidence of the following outcomes of implementations of the Career Preparation System: (1) career pathways support enriched curricula and high academic standards; (2) career pathways increase student performance and academic achievement; and (3) career pathways students are better prepared to define career goals and make plans for their future. The evaluators praised the district for collecting "customer satisfaction" data from seniors who had participated in the career pathways model but recommended that program evaluation efforts be expanded to include longitudinal studies of students' employment outcomes and postsecondary education enrollment. (MN)

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Report on Career Pathways:
A Success Story in Berrien County, Michigan

Dennis W. Rudy & Ellen L. Rudy

Abstract
Independent evaluators were asked to provide feedback to the Berrien County Intermediate School District regarding their progress in implementation of Michigan's Career Preparation System. The following document presents that report and provides an overview of the Career Pathways initiatives currently in place throughout the county, presents key findings, makes verifiable claim statements, cites major initiative accomplishments, presents evidence and performance indicators, and finally, makes recommendations for future success.

Overview
Conceptually, the creation of a career pathways educational system makes sense for preparing the next generation of workers. There are fundamental changes taking place in all areas of employment in America that present new challenges for those seeking employment. Employers have expectations for well-prepared employees who possess a variety of technical, teamwork, and problem solving abilities.

Career Pathways designs that have been developed across the country vary from state to state. Essentially, Career Pathways structures learning to aid educators and students in making meaningful connections to broad areas of actual career opportunities reflective of the current and emerging world of work. The framework for the Michigan Career Preparation System was created through amendments to the School Public Aid Act in 1997-98. Since then, all fourteen K-12 school districts within Berrien County have initiated and implemented various components of the Career Preparation System and have substantially changed the way students learn in Southwest Michigan.

The Role of Berrien County Intermediate School District
The Berrien County Intermediate School District has provided the leadership, training, resources, and continued support to local school districts to implement this system-wide School-to-Career reform effort. They have effectively engaged school leaders, teachers, business and industry, community colleges and universities, and economic organizations in developing educational experiences and partnerships to provide all students with the necessary academic coursework, technical training, work behavior, knowledge, and skills for success in a career of their choice. Teaching and learning are focused on providing experiences that will ensure that graduates are fully prepared to move from high school to post-secondary education, technical training, and finally to successful careers.

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D. Rudy

Education for Employment: More than School-to-Work

While the frameworks for developing a Career Preparation System was initially provided by the Michigan Department of Education and then by the Michigan Department of Career Development, the delivery models that are now embedded into the curriculums of local schools are unique to Berrien County.

The Career Pathways approach helps students in Berrien County by engaging them in opportunities to identify, assess and prepare for their career goals. The Michigan model that has been adopted in Berrien County offers six Career Pathways that are supported by labor market data utilized by the State of Michigan. The pathways, which are also defined as career clusters or majors, are broad-based groupings of careers that share similar characteristics and whose employment requirements call for many common interests, strengths, and competencies.

Berrien County's Career Pathways

- Arts and Communication: careers related to the humanities, the performing, visual, literary, and media arts.
- Business, Management, Marketing, and Technology: careers related to all aspects of business including accounting, business administration, finance, information processing and marketing.
- Engineering/Manufacturing and Industrial Technology: careers related to technologies necessary to design, develop, install, or maintain physical systems.
- Health Services: careers related to the promotion of health as well as the treatment of injuries, conditions, and disease.
- Human Services: includes careers in childcare, civil service, education, hospitality, and the social services.
- Natural Resources and Agriscience: careers related to natural resources, agriculture, and the environment.

Career Preparation Components

Over the past four years, the Berrien County Intermediate School District has assisted local school districts in developing or enhancing the implementation of other key components that comprise the Career Preparation System. There is strong evidence that a coordinated systems approach exists that attempts to integrate programs and services which address the needs of students to be lifelong learners and successfully fill roles as capable individuals in schooling and/or a career of their choice. There are many strands to the integrated Career Pathways curriculum that are currently in place in the K-12 schools. Some are listed below:

- Comprehensive Guidance and Counseling,
- Career Assessment Activities,
- Four-year Educational Development Plans,
- Workplace Readiness Training,
- Career Technical Education learning opportunities,
- Work-based learning experiences,
- Job-shadowing,
- Portfolio development, and
- Service learning projects.

This brief overview of the Berrien County Career Preparation System and Career Pathways provides background information relevant to the findings presented in the remainder of this report.

Key Findings

This study presents a favorable evaluation of Berrien County's Education for Employment Career Pathways initiatives. The evidence presented indicates successful implementation of numerous programs and activities. Performance indicators are available to demonstrate that Career Pathways students have better attendance, take more difficult courses, have higher grade point averages, earn more MEAP endorsements, and attend colleges in greater numbers.

Overall the data indicates that the Career Preparation System in Berrien County is helping young people think systematically about their future and what is necessary to be able to achieve their occupational or other goals. Career Pathways students have a better sense of their career direction and feel more certain about what they want to do in the future. Participants are more motivated academically because their experiences help them see the practical relevance of their class work.

Claim Statements

The following pages present verifiable claim statements and supporting evidence for Berrien County's Career Pathways success story. These claim statements reinforce Goal 1 of the Berrien, Cass and Van Buren Workforce Development Board and the Education Advisory Group (EAG) who are partners in the Career Pathways system in Berrien County. Following each claim statement are bulleted phrases that describe major Career Pathways accomplishments. Data embedded in each section, along with five graphs, provide additional evidence.

Claim Statement #1

Career Pathways support enriched curricula & high academic standards.

Since the implementation of the Career Pathways program in Berrien County:

- graduation requirements for high schools have increased,
- more students are taking an additional third and fourth year of high school mathematics and science,
- the number of Advancement Placement (AP) course offerings has grown substantially,
- integrated career-focused curricula has been developed and utilized in 14 school districts,
- the Michigan Curriculum Frameworks have been implemented in all elementary, middle and high schools.

The Michigan Career Pathways model has been used within the county to align curricula with instruction, and ultimately to guide student career choices. This effort has resulted in a comprehensive standards-based program of study that provides students

with a choice of professional and technical strands for each of the six pathways. This reflects the importance of aligning curricula and designing programs of study that integrate career preparation into traditional coursework noted by many national studies ("Choosing Success," 1999; "School-to-Work," 2001).

Overall high school graduation requirements for the county have risen 15% to a mean of 26.5 in 2001 versus a mean of 23.1 in 1997. This is consistent with national trends in which Career Pathways programs are linked to increased high school graduation requirements ("Choosing Success," 1999; "School-to-Work," 2001).

The number of students enrolled in a 3rd year content course (i.e. Math, Science, Social Studies and Language Arts) has substantially increased for all schools participating in Career Pathways for the reporting years 1997-2001 (see Figure 1 below). Evidence exists to support the finding that increased course offerings and student enrollment across content areas and instructional levels is due in part to implementation of the Career Pathways curricula ("Choosing Success," 1999). Two hundred twelve new course offerings have been developed and implemented for high school students in the county since the inception of Career Pathways. The county has also seen a marked increase in the number of Advancement Placement (AP) course offerings available to high school students.

The Michigan Curriculum Frameworks provide benchmarks to ensure that state standards are integrated in all Career Pathways course offerings. This integration and articulation of the curricula links the elementary, middle and high schools in their career preparation focus, and ensures that students select coursework that is meaningful, rigorous and appropriate to their interests and academic level.

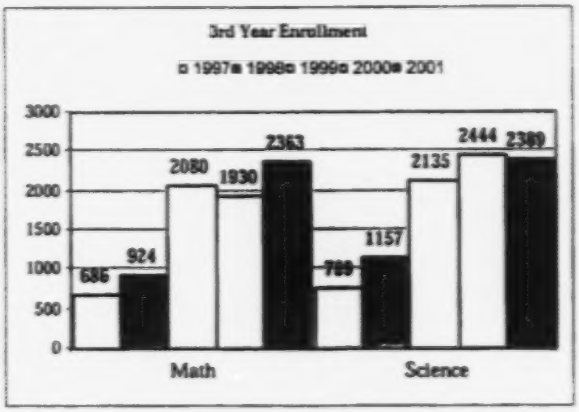

Figure 1

Claim Statement #2
Career Pathways increase student performance and academic achievement.

As the Career Pathways initiative has grown in Berrien County, so has:

- the number of high school graduates attending post-secondary institutions,
- the mean grade point average for all high school students county-wide,
- the overall high school student attendance rate,
- academic achievement as measured by the number of students attaining Michigan Educational Assessment Program (MEAP) endorsements.

National trends have documented that Career Pathways curricula of study support and increase academic achievement, attendance rates, overall grade point averages, and graduation rates for high school students (Hughes et al., 2001; "School-to-Work," 2001). Studies have also shown that high school students from Career Pathways systems are more motivated and engaged in schooling than their age peers due to the relevancy of the course content and career focus of the instructional activities ("School-to-Work," 2001; "Choosing Success," 1999; "STW Reporter," 1998).

In Berrien County, Career Pathways curricula has significantly impacted the number of high school graduates attending a post-secondary program of instruction for additional training, certification and degrees. In 1997, 61% of high school seniors enrolled in programming after high school graduation, while 68.7% of seniors enrolled in programs after graduation in 2000, reflecting a 7.7% increase.

Trend and pattern data supports a county-wide increase in the mean grade point average for all high school students in grades 9, 10, 11 and 12 in the years 1997-2001. The overall high school attendance rate has also grown steadily as seen in Figure 2 below.

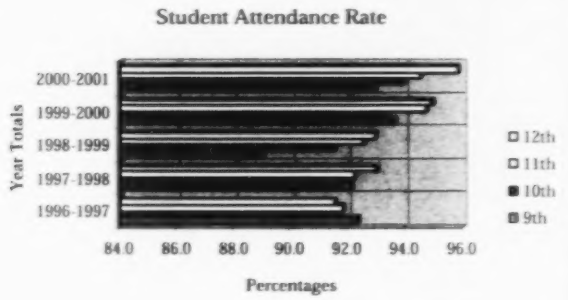

Figure 2

County-wide data shows that more students are earning Michigan Educational Assessment Programs (MEAP) endorsements based upon academic testing in the content areas of language arts, mathematics, science, and social studies. 1134 students attained MEAP endorsements in mathematics in the year 2000 versus 158 students in 1997, a six-fold increase. For science the number of endorsements rose to 1062 in 2000 versus 171 in 1997, or five times as many students earned MEAP certification.

Claim Statement #3

Career Pathways students are better prepared to define career goals and make plans for their future.

In Berrien County, the Career Pathways initiative has provided for:

- multi-year sequential career guidance for students,
- work-place readiness skills integrated into course content,
- implementation of the Michigan Comprehensive Guidance & Counseling program in county schools.

Students, educators and parents/families are involved in determining and selecting a Career Pathways program of study. This collaboration and consultation first begins in the elementary school, with an initial decision regarding a program of study being made in the middle school, and refined in the high schools and in post-secondary programs. The six Career Pathways are also used in implementing Educational Development Plans (EDP's) for each individual student which contain personal information, Career Pathways goals, educational and training goals, career assessment tests, and a plan of action. Career Pathways are designed to ultimately guide students into a successful career of their choice ("Career Preparation," 1999). Studies have noted that exploration is helpful in defining career goals (Hughes et al., 2001; "Systems Overview Career Preparation," 2001). Career assessment tools are also utilized in grades seven through eleven to help students define their preferences and work interests.

The Career Pathways programs of study integrate job readiness skills that employers value (e.g. making decisions, solving problems, working as a team) in regular instructional activities (Hughes et al., 2001; "Choosing Success," 1999). Work-based learning experiences provide students opportunities to relate to adults, to practice accepted social expectations and appropriate behaviors in a professional environment, and to communicate with adult co-workers (Hughes et al., 2001).

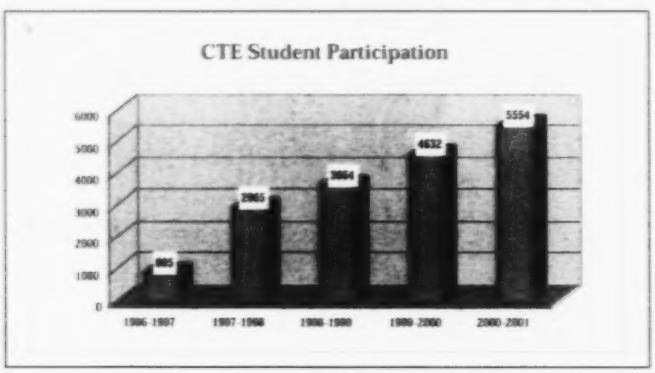

Figure 3

Job shadowing and internships often lead to part-time and summer employment for students that differs from traditional youths, thus broadening their career options and may even lead to higher quality jobs (""School-to-Work," " 2001; Hughes et al., 2001; "STW Reporter," 1998). Studies have shown that students enrolled in Career Pathways believe that learning is more meaningful, are more knowledgeable about career options, and may, in fact, select additional schooling and training, thus remaining in school longer due to their career interests (""School-to-Work," " 2001; Hughes et al., 2001; "STW Reporter," 1998). Numerous reports show that teachers and employers are enthusiastic about Career Pathways and its impact on students (Hughes, et al., 2001).

Participation in Career Technical Education courses within the county has increased over 500% from 895 students in 1997 to 5,554 students in 2001 as seen in Figure 3 on the preceding page. Figure 4 below demonstrates increases in applied learning experiences associated with the Career Pathways.

Applied Learning Experiences

	1997	1998	1999	2000	2001
Work Study	12	80	120	214	176
Job Shadow	75	76	341	622	744
Coop	109	311	509	531	516
Mentor	10	0	3	50	139
Apprentice	5	5	4	25	34
Intern	0	21	67	122	119
Other	0	353	39	153	78
TOTALS	211	846	1083	1717	1806

Figure 4

Claim Statement #4
Career Pathways prepare students for college, careers, and the workplace of the future.

As a result of the Career Pathways initiative, Berrien County students, educators and parents now see:
- that the work-place is a learning environment,

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- career and employability skills are integral to curricula across content, grade levels and programs of study.
- an increased connection between K-12 and post-secondary delivery systems.

Workplace readiness and learning standards defined by employers from across the state have been implemented into the various technical and professional strands of Michigan's six Career Pathways. Students learn and hone these workplace readiness skills through programs that occur in the classroom, and at the job or work site. Some models used by the county in promoting these work-based experiences for students are: job shadowing, volunteering, unpaid training programs, apprenticeships, and out-of-school placements. Students learning work-related skills, such as job search strategies (i.e. resume-writing, interviewing skills, internet searches) as part of their career program of studies are more prepared for the world of work and for post-secondary programs ("Choosing Success," 1999; Hughes, et al., 2001).

There is an increased and renewed connection between the Berrien County high schools and the post-secondary system of instruction and certification. In fact, this articulation reflects a national trend resulting in most young people broadening their career options to include post-secondary programs of study, such as: junior colleges; post high school certificate programs, and four-year colleges (Hughes, et al., 2001). Data from the county shows a marked increase in the number of high school students receiving college credits through dual enrollment and articulation programs. Figure 5 below illustrates this increase.

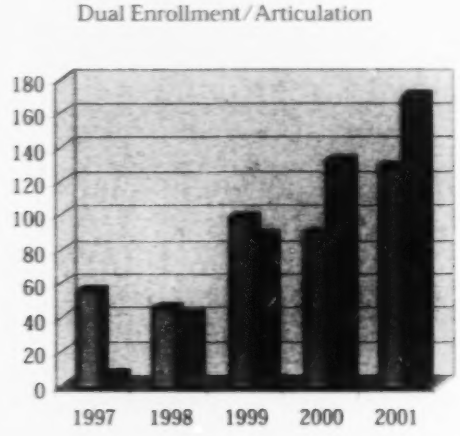

Figure 5

In 1997, only 62 high school students were enrolled in college level courses, while 299 high school students earned college credits in 2001. This 270% increase in enrollment reflects the vigor and vitality of the renewed connection between post-secondary institutions and the Berrien County schools. Figure 6 on the following page documents the

trend and pattern increase in the percentage of high school graduates attending post-secondary institutions from 1997-2001.

Evidence exists at the county-level, in line with the national trend data, to support the finding that the Career Pathways model prepares students for colleges, post-secondary programs and careers of the future by focusing their attention and efforts in a career pathway of personal interest ("School-to-Work", 2001; "Choosing Success," 1999).

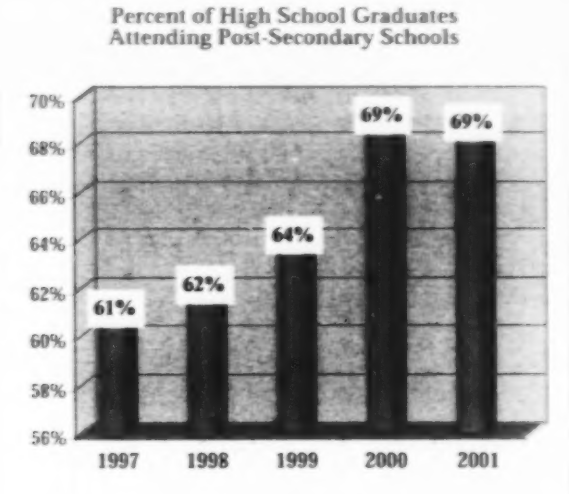

Figure 6

Conclusions/Recommendations

Berrien County schools have achieved measurable success by implementing comprehensive system-wide Career Pathways curricula. They have embarked on an important educational endeavor that prepares students for careers and college. They have focused upon creating a system of school-based and work-based learning opportunities to which all students have access. Their system places an emphasis on community partnerships and involves leaders from business, industry, and education in working together to provide optimum learning opportunities for students. It is important that these activities be sustained through regular state and local education funding, school partnerships, and other ongoing community contributions.

Berrien County educators will need to charge themselves with the responsibility of seeking continuous improvement of their Career Preparation model. While useful "customer satisfaction" data is available from an annual county-wide "Senior Survey" report, it is recommended that the county seek relevant employment and post-secondary education information from graduates longitudinally. Future surveys of Career Pathways students should explore long-term outcomes such as earnings, job availability, college GPA, and college completion rates.

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